

# Abdominal pregnancy discovered during laparotomy for complications after attempted abortion

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We report a case of abdominal pregnancy with a dead foetus of 19 gestational weeks and 3 days discovered incidentally during a laparotomy following complications of attempted abortion. Abdominal pregnancy is a rare form of ectopic pregnancy (1% of all ectopic pregnancies) usually diagnosed by ultrasound. In this case, a hysterectomy was performed after discovery of uterine perforation, followed by a complete, easy, and non-hemorrhagic detachment. The foetus and membrane were discovered during abdominal toilet. The postoperative course was marked by the formation of a small hematoma at the site of the foetus and membrane implantation which required removal. The patient was released on the 11th postoperative day.

**KEY WORDS:** *abdominal pregnancy, ectopic pregnancy, abortion*

## Introduction

Chad is a sub-Saharan country where reproductive health problems are still acute [1]. There is a high maternal mortality ratio, a low contraceptive prevalence, a high prevalence of induced abortions among teenage girls (18.4 % of all teenage pregnancies) due to the restrictive abortion law, poor perinatal care, difficult access to ultrasound services, and poverty. Most pregnancies in developing countries go forward naturally without any ultrasound scans or with erroneous ones. Abdominal pregnancy may mimic other intra-abdominal pathology and without ultrasonography makes diagnosis of this rare condition difficult [2].

## Case Report

Mrs M.Y. was 30 years old and in her 8th pregnancy. She had had one previous Caesarean section in 2005 and had five living children. Oral contraceptives had been used from 2012 to 2014. She was admitted as an emergency to N'Djamena Mother and Child Hospital on May 12th 2015 with abdominal pain and bleeding after an attempted abortion in an N'djamena's peripheral health center – which the patient had requested because the pregnancy was unwanted. No scan had been performed and several abortion attempts had been made by unskilled individuals using sharp objects and in deplorable hygienic conditions. As the patient still felt pregnant, she attended a district hospital where manual vacuum aspiration (MVA) and curettage were carried out without success.

**Physical examination:** The woman was in a good general condition, conscious with pale conjunctivae

suggesting anaemia - which was confirmed with a blood test showing haemoglobin to be 6.4g /dl.

**Obstetrical examination:** The abdomen was enlarged and supple. The uterus did not reflect the gestational age, and was painful and soft, thus difficult to assess. The cervix was posterior, shortened and closed. Dark red blood appeared on the examining glove. An ultrasound scan showed a gestational sac with a foetus of about 19 weeks and 3 days without cardiac activity in contrast to the physical examination. However, the clinical staff of the MCH decided to expel the foetus by using misoprostol followed by uterine aspiration. Antibiotic cover was given (using amoxicillin and gentamycin) and a transfusion of two units of total blood. During this maneuver, the uterus was discovered to be empty. Thus a laparotomy through an old Pfannenstiel scar was performed under general anesthesia. The findings were:

- A small peritoneal haematoma consisting of a few blood clots (150g) and a little fluid blood (about 250 ml in the pouch of Douglas);
- Uterine perforations: in the fundus and the left horn, caused by abrasive abortive maneuvers. Uterus scar was intact;
- An abdominal (supra pubic) haematoma separated from the bladder which was intact. The fallopian tubes and ovaries were intact without lesions.

A hysterectomy was performed without finding the gestational sac seen in the scan. After cleaning the abdominal cavity using physiologic serum, a soft and

smooth mass with regular contours was found in the epigastric region. Hence the laparotomy was enlarged in a T-shape. A complete gestational sac, with a dead foetus bathing in amniotic fluid and the placenta attached to the upper part of the transverse colon, was found. It was in a capsule made by omentum (see Figure 1).



Figure 1. Image of a complete gestational sac found in the transverse colon. (Credit Djongali Tchonchimbo Salathiel)

After the separation of adhesions the detachment was easy with little bleeding and satisfactory hemostasis on insertion points. During the postoperative course, a small hematoma at the gestational implantation site was noticed and removed. The outcome was good and the patient was discharged on the 11th postoperative day. No histopathological examination was carried out due to financial reasons.

### Discussion

Our patient was 30 years old. In Gabon, Picaud and al [3] reported 11 cases of abdominal pregnancies with a median age of 27 years (range 22 – 44 years). In the Democratic Republic of Congo, Kangulu and al [4] published a case of an abdominal pregnancy in a 22 year-old patient. These publications show that abdominal pregnancies can occur in any age during the reproductive period, and in primigravidae, paucigravidae or multigravidae. Predisposing factors described by earlier authors [5, 6, 7, 8] were also found in our case: a history of Caesarian section, induced abortion, use of contraceptives method (coil or intrauterine contraceptive device) genital infection and a lower socioeconomic situation. Correa [9, 10] noted that abdominal pregnancy was associated with poverty.

Abdominal pregnancy frequency is high in developing countries due to the high incidence of genital infections, ignorance and inadequate pregnancy surveillance [8, 10]. Genital infections like salpingitis predisposes to ectopic pregnancy by impairing the passage of the ovum along the fallopian tubes to uterus.

Clinical diagnosis of abdominal pregnancy is difficult without ultrasonography [7]. In our case, the discovery

was lucky because the emergency laparotomy revealed the situation. The ultrasound scan had shown an intra-uterine pregnancy. A vaginal scan should be ideally be done before any conclusion about the location of the gestational sac is made. As in previous studies [4, 8, 10] we recognize that this pathology is still difficult to diagnose (in the first or second trimester of pregnancy). In other areas, X-rays are used to diagnose foetal death.

Like earlier authors [4, 8, 10], we performed a laparotomy; the findings suggest that this case is a secondary abdominal pregnancy because:

- Using diagnostic criteria for primitive forms of abdominal pregnancy described in 1942 by Studdiford [10]: the tubes were healthy and the uterus unruptured except for minor perforations and a supra pubic hematoma - which was partially separated from the bladder; therefore, this abdominal pregnancy would be secondary to an earlier uterine perforation, especially since there were several abortion attempts.
- The hypothesis of a complete abortion through a uterine breach is difficult to deduct. This account of a foetus in an intact bag of membranes going through a uterine breach is astonishing because it is far more likely that the bag would have been broken by the violent manoeuvres of the abortion attempts. If there had been funding for sending the pregnancy to histology this would have been useful as it could have told us more about the implantation history.

In our case, postoperative morbidity was marked by the resumption of bleeding at the gestational sac implantation site. This complication has also been reported by other authors [4, 7, 9].

### Conclusion

Peritoneal or abdominal pregnancy may be asymptomatic initially. It is a surgical emergency because the pregnancy can damage any organ to which it is attached. In this case it could have caused serious problems with the woman's bowel. It is frequent in poor countries where the risk factors listed above are found. In order to reduce maternal mortality, it is necessary to:

- Prevent unwanted pregnancies,
- Have an early diagnosis, and monitor pregnancies by improving ultrasound accessibility which is essential in the diagnosis of ectopic pregnancies in general and abdominal pregnancies in particular.

For countries like Chad, and South Sudan, training for medical and paramedical staff in the practice and systematization of obstetric ultrasound during pregnancy is necessary to improve diagnosis and prognosis.

**Authors Approval**

All authors approved the submission of this article.

**Conflict of interest**

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**Consent**

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